

Amendments to the Claims

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Claim 1-38 (Canceled)

Claim 39 (New) An optical transmission system comprising:  
an optical transmitter for transmitting an optical signal;  
an optical separation part; and  
a plurality of optical receivers for receiving the optical signal via an optical fiber  
and said optical separation part,

wherein said optical transmitter comprises:

a modulation part for modulating carriers of differing frequencies with  
transmission data to produce modulated signals;

a frequency division multiplex part for multiplexing the modulated signals  
to produce a frequency division multiplex signal;

an intensity modulation part for intensity-modulating the optical signal  
with the frequency division multiplex signal to produce an intensity-modulated  
optical signal transmitted via the optical fiber,

wherein said optical separation part separates the intensity-modulated optical  
signal transmitted via the optical fiber into a plurality of separate optical signals, and

wherein said plurality of optical receivers each comprise:

an external modulation part for intensity-modulating one of the plurality of  
separate optical signals with an electrical signal equal in frequency to one of the  
carriers modulated in said modulation part; and

an optical-electrical conversion part for converting the one separate optical  
signal intensity-modulated by said external modulation part into an electrical  
signal.

Claim 40 (New) The optical transmission system according to claim 39, wherein  
the transmission data includes digital data, and  
said modulation part includes a digital modulation part for subjecting the carriers of  
differing frequencies to digital modulation with the digital data.

Claim 41 (**New**) The optical transmission system according to claim 39, further comprising means for extracting desired transmission data from the electrical signal obtained by conversion in said optical-electrical conversion part.

Claim 42 (**New**) The optical transmission system according to claim 39, further comprising a low pass filter for extracting desired transmission data from the electrical signal obtained by conversion in said optical-electrical conversion part.

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